THE STATE WATER PROJECT

Planned, designed, constructed and operated by the California Department of Water Resources, the State Water Project (SWP) is the largest state-built, multi-purpose, user-financed water project in the United States.

The SWP spans more than 600 miles from Northern to Southern California and includes 34 storage facilities, 20 pumping plants, four pumping-generating plants, five hydroelectric power plants and approximately 700 miles of canals, tunnels and pipelines.

The SWP's main purpose is to provide a reliable water supply to cities and regions in Northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast and Southern California. Other project purposes include flood control, power generation, recreation, fish and wildlife enhancement and water quality improvements to the Sacramento-San Joaquin Delta.

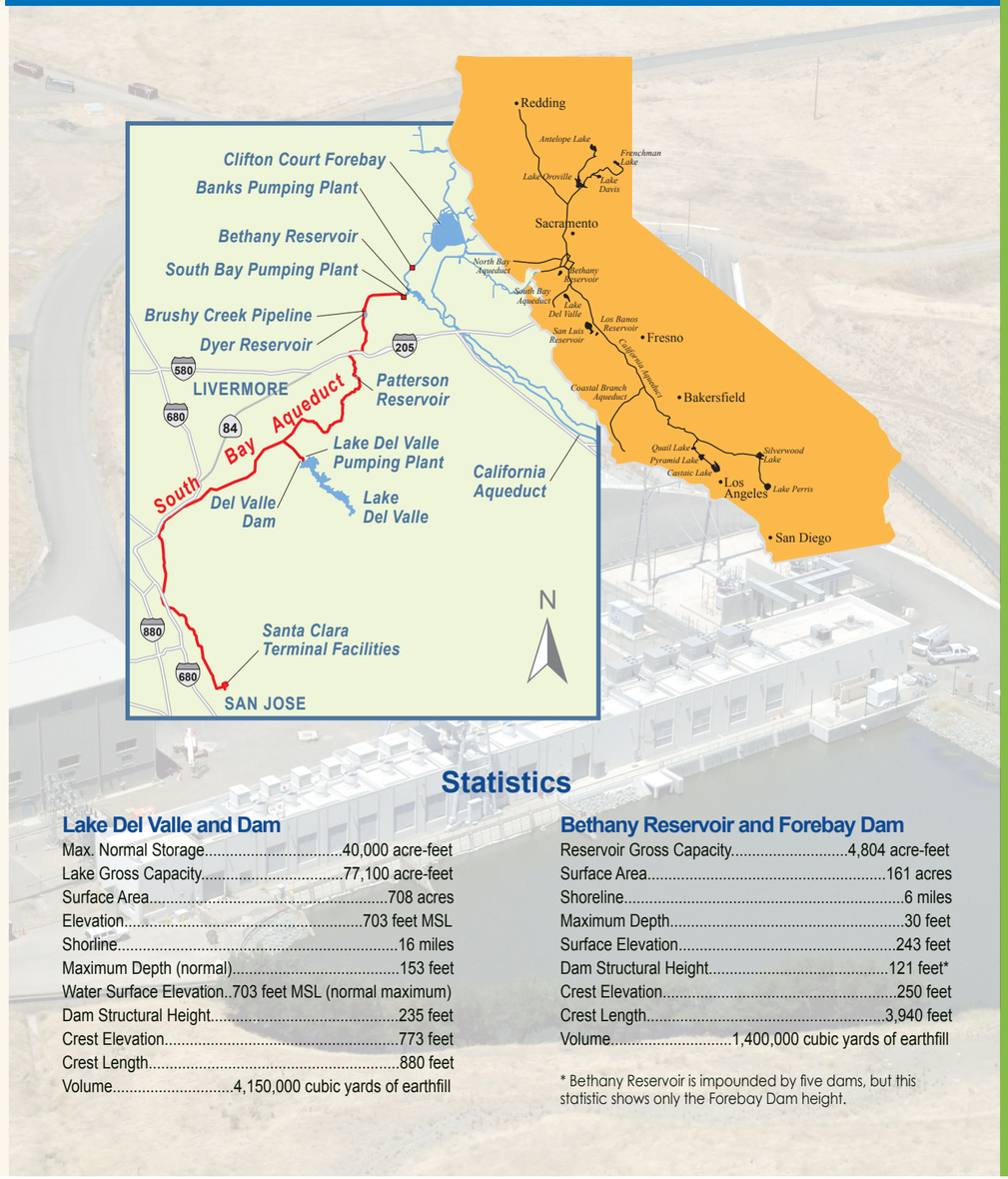
A $1.75 billion bond approved by voters in 1960 provided initial funding for the SWP, and payments received from 29 urban and agricultural water agencies are paying off the bonds. Approximately 70 percent of SWP water goes to urban users and 30 percent to agriculture. SWP contracting agencies are repaying the cost, including interest, of financing, building, operating and maintaining the SWP.

THE SOUTH BAY AQUEDUCT

A significant portion of the Bay Area's water supply is delivered by the South Bay Aqueduct, which was the first SWP conveyance system completed. Construction began in 1960, and improvements were added in 2014.

The aqueduct has been delivering water to Alameda County since 1962 and to Santa Clara County since 1965. The water's journey to the aqueduct begins at Bethany Reservoir near Tracy, where the South Bay Pumping Plant lifts it 566 feet in three parallel buried pipelines to the eastern ridge of the Diablo Range.

SOUTH BAY AQUEDUCT



Statistics

Lake Del Valle and Dam

Max. Normal Storage	40,000 acre-feet
Lake Gross Capacity	77,100 acre-feet
Surface Area	708 acres
Elevation	703 feet MSL
Shoreline	16 miles
Maximum Depth (normal)	153 feet
Water Surface Elevation	703 feet MSL (normal maximum)
Dam Structural Height	235 feet
Crest Elevation	773 feet
Crest Length	880 feet
Volume	4,150,000 cubic yards of earthfill

Bethany Reservoir and Forebay Dam

Reservoir Gross Capacity	4,804 acre-feet
Surface Area	161 acres
Shoreline	6 miles
Maximum Depth	30 feet
Surface Elevation	243 feet
Dam Structural Height	121 feet*
Crest Elevation	250 feet
Crest Length	3,940 feet
Volume	1,400,000 cubic yards of earthfill

* Bethany Reservoir is impounded by five dams, but this statistic shows only the Forebay Dam height.

California Department of Water Resources' Mission...

To manage the water resources of California in cooperation with other agencies, to benefit the State's people and to protect, restore and enhance the natural and human environments.

FOR MORE INFORMATION

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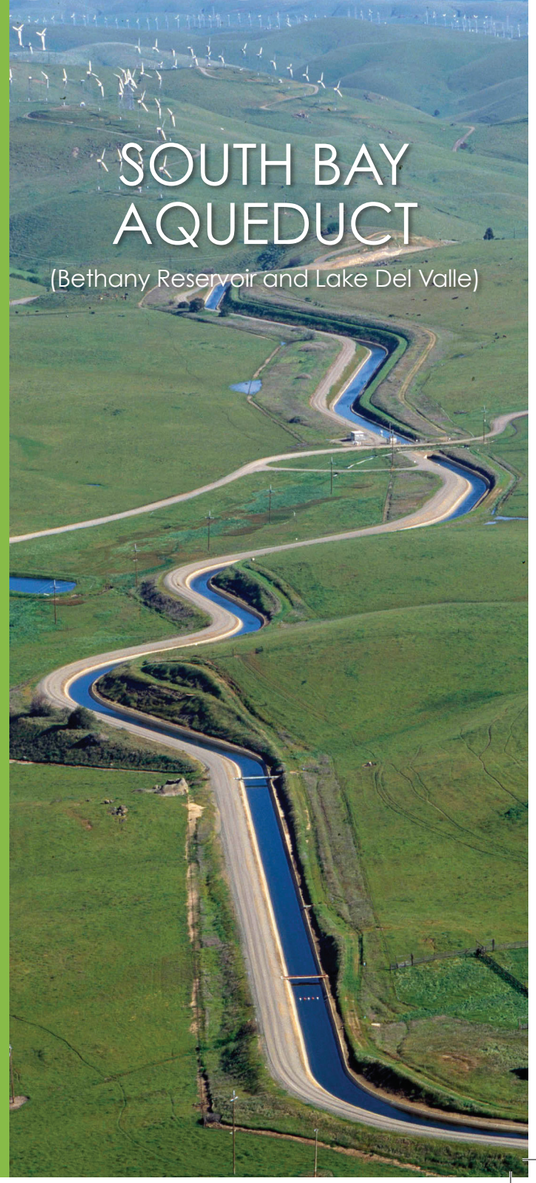
STATE WATER PROJECT

SOUTH BAY AQUEDUCT

(Bethany Reservoir and Lake Del Valle)



South Bay Pumping Plant

SOUTH BAY PUMPING PLANT

Known as the heart of South Bay Aqueduct, the South Bay Pumping Plant was upgraded to help lift Delta water 566 feet through four miles of buried pipeline.

The pumping plant's original nine units have a combined capacity of 330 cubic feet per second (cfs). A 2008-2014 enlargement project added four pumping units to increase the plant's pumping capacity to 510 cfs, although the plant delivers only approximately 380 cfs to the South Bay Aqueduct due to pipeline constraints.

The Pipeline

A new third pipeline conveys water to Dyer Reservoir, which was built near Livermore during the enlargement project. The 525 acre-foot reservoir supports the SWP during "off-peak" hours by receiving water from the South Bay Pumping Plant at night when electricity rates are lower. The water flows by gravity from the reservoir into the Aqueduct to the Bay Area communities during the day, resulting in cost savings to the State and water users due to lower power consumption needed during the day, when power costs are higher. Dyer Reservoir is not open to the public for recreation.

Once water enters the aqueduct, it flows by gravity for nine miles to the 100 acre-foot Patterson Reservoir, where some water is released for delivery to Livermore Valley. The water flow then continues about nine miles to a junction point, where a portion is diverted into a 1.5-mile branch pipeline connected to Lake Del Valle.

Beyond the Del Valle junction, the water flows by pipeline to La Costa Tunnel, proceeds southwest past Sunol, goes through the Mission Tunnel and then south through the hills overlooking San Francisco Bay. The aqueduct terminates in a 160-foot diameter steel tank on a hillside five miles east of downtown San Jose.

Water Deliveries

Agencies served by the South Bay Aqueduct have water allocations totaling 222,619 acre-feet a year, although actual deliveries are adjusted annually and depend on weather and environmental variables. Alameda County Flood Control and Water Conservation District (Zone 7) is allocated 80,619 acre-feet, Alameda County Water District 42,000 acre-feet and Santa Clara Valley Water District 100,000 acre-feet.

BETHANY RESERVOIR

Bethany Reservoir is located in hill country about 10 miles west of Tracy and 1.5 miles down the California Aqueduct from Banks Pumping Plant. Completed in 1967, it serves as a forebay for the South Bay Pumping Plant and a conveyance facility for the California Aqueduct.

History

The Indians who lived in the Bethany Reservoir area were probably Northern Valley Yokuts. The reservoir area is on high ground outside the Delta and lacks trees, and the Indians apparently spent little time there. Evidence of native habitation found during project construction includes an obsidian knife, a chert core tool and the remains of a human skeleton found near the South Bay Pumping Plant.

Recreation

Operated by the California Department of Parks and Recreation, the recreation area welcomes picnicking, fishing, boating, windsurfing, hiking and bicycling. Overnight camping and hunting are not allowed at Bethany Reservoir.

Bethany Reservoir

LAKE DEL VALLE

The lake was created in 1968 to provide recreation and to enhance fish and wildlife habitats, as well as to provide flood control of Alameda Creek and regulatory storage for some of the water delivered through the South Bay Aqueduct.

History

A band of Ohlone Indians lived in the Del Valle area long before the Spanish missionaries and explorers set foot in the region. Arrowheads and grinding stones recovered at Lake Del Valle reveal the existence of Ohlone settlements in the shadow of the Diablo Range.

Lake Del Valle State Recreation Area occupies part of the 1839 Mexican land grants to the families of Agustin Bernal and Antonio Sunol (the present-day city bears his name).

During the late 1800s and early 1900s, American expansion resulted in the occupation of the original Mexican and Spanish land grants. Foundations and rock piles from buildings from that period can be found along the old trails. Many of the early building sites are beneath the waters of Lake Del Valle.

Del Valle Dam

The 235-foot-high dam impounds a reservoir with a total capacity of 77,100 acre-feet. To provide a flood control reserve, it normally stores from 25,000 to 40,000 acre-feet. (An acre-foot is 325,851 gallons, enough water to cover one acre of land one foot deep.)

Recreation

Operated by the East Bay Regional Park District, Lake Del Valle's 5,200-acre recreation area offers picnicking, swimming, boating, fishing, biking, hiking, windsurfing, camping and horseback riding.

Lake Del Valle

Fishing is best during the winter, with the California Department of Fish and Wildlife regularly releasing trout from October through May. Stocking trophy-sized trout is supported by the East Bay Regional Park District's fishing permit program. A state fishing license with appropriate stamps and a Park District daily fishing access permit are required for anglers age 16 and older.

Boating and swimming are permitted in designated areas only. Alcohol is prohibited and children should be accompanied by adults at all times.

About 150 family campsites and three group sites (each accommodates 150 people) are available year-round. Picnic sites with barbecue units are provided in many park areas. No ground fires are permitted, except in personal cooking units. Picnic areas for large groups may be reserved at least two weeks in advance by calling (888) 327-2757, ext. 2. Information also is available at East Bay Regional Park District's Website at **EBParks.org**

Information

To reach Lake Del Valle, take Highway 580 to the North Livermore Avenue exit in Livermore. Drive south through Livermore. Livermore Avenue becomes Tesla Road. Turn on Mines Road to Del Valle Road (the right fork) and follow it to the park entrance. For information, call East Bay Regional Park District at (888) 327-2757.